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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/538,311

02/21/2006

Stephen Temple

27754/25227

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4743

7590

09/18/2008

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EXAMINER

LEGESSE, HENOK D

ART UNIT

PAPER NUMBER

2861

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/538,311

**Applicant(s)**

TEMPLE ET AL.

**Examiner**

HENOK LEGESSE

**Art Unit**

2861

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-75 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,7,8,10,12-14,16-19,47,72 and 73 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1,4-6,9,11,15,20-46,48-71,74-75 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

**Group I**, claim(s) 1,4-6, 9,11,15,74, drawn to an actuator component structure, having an opening in the top surface of the body, and the actuator structure extends as an impermeable wall across the opening, and with a plurality of openings where each openings comprising a respective actuator structure.

**Group II**, claim(s) 20-28, 75, drawn to a component for ejecting a droplet in a direction of droplet flight, with the port provided in the roof of the convex cross-section, and an actuator structure that is homogeneous, with body formed of silicon or alumina.

**Group III**, claim(s) 63-71, drawn to a channelled component for ink jet printer, with wall that is resiliently deformable in an actuation direction, with chevron-shaped channels, and the inter-channel spacing of said acoustic boundaries is less than that of the inter-channel spacing of the said nozzles.

**Group IV**, claim(s) 29-44, drawn to method of forming a component for an inkjet printhead including step of forming deformable actuator at least in part in the mold feature, step of forming first and second electrode layer.

**Group V**, claim(s) 45-62, drawn to method of forming a component for an inkjet printhead including step of forming a plurality of openings, isolated actuator structure, sputtering process comprising metal targets lead, titanium and zirconium.

2. The inventions listed as Groups I, II, III, IV, and V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The groups listed above are not within the permitted combination of different categories of inventions. That is three apparatuses and two process of making product. As set forth in PCT/GB03/05626, there is no special technical feature that defines a contribution over the prior art, WO 01/72520 A, WO 01/72519 A, TW 506908 B, WO 02/078959 A, US 6428140 B1, US 5459501 A, and US 2002/130925 A1 define common technical features.

3. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

A. The embodiment of Figs.1A-1C (Inkjet component according to Figs.1A-1C).

B. The embodiment of Figs.2A-2B (Inkjet component according to Figs.2A-2B).

4. Upon election of Group A or B the applicant is further required to elect one of the following disclosed species. These species are deemed to lack unity of

invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

- i. The embodiment of Fig.3 (Channel arrangement according to Fig.3).
- ii. The embodiment of Fig.4 (Channel arrangement according to Fig.4).
- iii. The embodiment of Fig.8 (Channel arrangement according to Fig.8).

5. Upon election of i, ii, or iii the applicant is further required to elect one of the following disclosed species. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

- a. The embodiment of Fig.5 (Modules butted together according to Fig.5).
- b. The embodiment of Fig.6 (Modules butted together according to Fig.6).
- c. The embodiment of Fig.7 (Modules butted together according to Fig.7).
- d. The embodiment of Fig.9 (Modules butted together according to Fig.9).
- e. The embodiment of Fig.10 (Modules butted together according to Fig.10).

6. Upon election of a, b, c, d, or e the applicant is further required to elect one of the following disclosed species. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

- I. The embodiment of Fig.18A (Actuator structure according to Fig.18A).
- II. The embodiment of Fig.18B (Actuator structure according to Fig.18B).
- III. The embodiment of Fig.19A (Actuator structure according to Fig.19A).
- IV. The embodiment of Fig.19B (Actuator structure according to Fig.19B).
- V. The embodiment of Fig.20 (Actuator structure according to Fig.20).
- VI. The embodiment of Fig.21 (Actuator structure according to Fig.21).

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

7. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: As set forth in PCT/GB03/05626, there is no special technical feature that defines a contribution over the prior art.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENOK LEGESSE whose telephone number is

(571)270-1615. The examiner can normally be reached on Mon.- Fri. Between. 8:00 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW LUU can be reached on (571)272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LUU MATTHEW/  
Supervisory Patent Examiner, Art Unit 2861

H.L.  
09/05/2008